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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,798

12/29/2004

Ikuo Kato

IID-0216

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74384

7590

03/04/2008

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EXAMINER

GWARTNEY, ELIZABETH A

ART UNIT

PAPER NUMBER

4145

MAIL DATE

DELIVERY MODE

03/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,798	Applicant(s) KATO ET AL.	
	Examiner ELIZABETH GWARTNEY	Art Unit 4145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/29/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20070110;20050114;20041229</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Note: This application appears to be a literal translation into English from a foreign document. Applicants' representative is strongly encouraged to review the application, especially the claims, to comply with accepted U.S. Patent structure and language. The claims are generally narrative and indefinite, failing to conform with current U.S. practice, and are replete with grammatical and idiomatic errors. The rejections under 35 USC 112 2nd paragraph indicated below are an attempt to call attention to these occurrences, yet may not be comprehensive.

Regarding claim 1, the recitation "preparing a stabilized suspension for preparing a stabilized suspension", is indefinite because it is unclear whether there are one or two steps of preparing a stabilized suspension. To further prosecution the limitation will be treated as one step.

Regarding claims 1, 6, 10, and 13, the phrase "relevant protein denaturation raw material" renders the claim indefinite because it is unclear whether the "relevant . . . raw material" refers to that produced in the preceding step or some other protein denatured raw material. To further

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prosecution the limitation will be treated as the "raw material" produced in the preceding coagulation step.

Regarding claims 2, 7, 11, and 13-14, the phrase "if it is necessary" renders the claims indefinite because it is unclear whether the limitation(s) preceding the phrase are part of the claimed invention. See MPEP § 2173.05(d). To further prosecution the limitation will be treated as synonymous with "optionally".

Regarding claims 2 and 7, the recitation "comprises a step of fermentation for adding saccharides and lactic bacterium starter" is confusing, as the fermentation process appears to be for adding saccharides and lactic acid starter rather than comprising the addition step. It is believed that applicant intends this to read "comprises a step of fermentation wherein saccharides and lactic bacterium starter are added".

Regarding claims 4, 9, 12, and 15, the recitation "one or more than two species of said coagulant (s)" renders the claims indefinite because it is unclear whether two species of said coagulant (s) and/or pH adjustor (s) would meet the claim limitation. To further prosecution the limitation will be construed as "one or more species of said coagulant (s) and/or pH adjustor (s)".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 6-9 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hitoshi et al. (EP 0 988 793 A1).

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Regarding claim 6, Hitoshi et al. disclose a method of manufacturing a drink made from beans as a raw material (see whole soybeans or dehulled soybeans – [0013]), wherein it comprises the steps of:

- Denaturing protein by adding a coagulant and/or a pH adjustor to soybean milk and ([0015] – [0016]);

- Performing the dispersing treatment for making the relevant protein denaturation raw material dispersed by a physical dispersing means (see homogenization – Abstract, [0024]).

Regarding claims 7-8, Hitoshi et al. disclose all of the claim limitations as set forth above. Hitoshi et al. also disclose that the method further comprises the step of (1) fermentation for adding saccharides ([0026]) as well as a lactic bacterium starter if it is necessary and fermenting ([0027] – [0030]) it as a step following said step of performing the dispersing treatment (Abstract) and (2) performing a re-dispersing treatment for making it re-dispersed by a physical dispersing means (see homogenization – ([0031])).

Regarding claim 9, Hitoshi et al. disclose all of the claim limitations as set forth above, and also disclose that one or more than two species of coagulant (s) and/or pH adjustor (s) are selected from the group of magnesium chloride, calcium chloride and an acidic pH adjustor ([0016]).

Regarding claim 13, Hitoshi et al. disclose a method of manufacturing a solid fermented food (see yogurt - [0031]) made from beans as a raw material ([0013]), wherein it comprises the steps of:

- denaturing protein by adding a coagulant and/or a pH adjustor to the relevant soybean milk ([0015] – [0016]);

performing the dispersing treatment for making the relevant protein denaturation raw material dispersed by a physical dispersing means (see homogenization – Abstract, [0024]), and fermenting for fermenting/solidifying by adding a lactic bacterium starter ([0027]-[0031]), following the relevant step of performing a dispersing treatment (see homogenization - [0031]).

With regards to the step of maturing, Hitoshi et al. does not disclose a step of maturing and therefore the reference anticipates the claim.

Regarding claims 14-15, Hitoshi et al. disclose all of the claim limitations as set forth above. Hitoshi et al. also discloses; (1) that saccharides as well as a lactic bacterium starter are added if it is necessary ([0026] – [0030]) and;(2) one or more than two species of said coagulant (s) and/or pH adjustor (s) are selected from the group of potassium chloride, magnesium chloride, calcium chloride and an acidic pH adjustor ([0016]).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
7. Claims 1-5 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitoshi et al. (EP 0 988 793 A1).

Regarding claim 1, Hitoshi et al. disclose a method of manufacturing a drink made from beans as a raw material (Abstract, [0013]), wherein it comprises the steps of:

- Preparing a stabilized suspension by treating an aqueous slurry of whole-grain mash of beans once or a plurality of times using a homogenizer (Example 1 – [0033]).
- denaturing protein by adding a coagulant and/or a pH adjustor to said stabilized suspension ([0015] – [0016]) and;
- performing the dispersing treatment for making the relevant protein denaturation raw material dispersed by a physical dispersing means (see homogenization – ([0024]).

While Hitoshi et al. discloses treating an aqueous slurry of whole-grain mash of beans using a homogenizer (Example 1) the reference does not explicitly disclose using a homogenizer under a homogenizing pressure of 100 Kg/cm². As viscosity and particle size are variables that can be modified among others, by adjusting homogenizing pressure, where viscosity and

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particles size both decreasing as the homogenization pressure is increased [0049], the precise homogenization pressure would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed homogenization pressure cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the homogenization pressure for treating the aqueous slurry of whole-grain mash in Hitoshi et al. to obtain the desired balance of viscosity and particle size (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).

Regarding claims 2-3, Hitoshi et al. disclose all of the claim limitations as set forth above. Hitoshi et al. also disclose that the method further comprises the step of (1) fermentation for adding saccharides ([0026]) as well as a lactic bacterium starter if it is necessary and fermenting ([0027] – [0030]) it as a step following said step of performing the dispersing treatment (Abstract) and (2) performing a re-dispersing treatment for making it re-dispersed by a physical dispersing means (see homogenization – ([0031])).

Regarding claim 4, Hitoshi et al. disclose all of the claim limitations as set forth above, and also disclose that one or more than two species of coagulant (s) and/or pH adjustor (s) are selected from the group of magnesium chloride, calcium chloride and an acidic pH adjustor ([0016]).

Regarding claim 5, Hitoshi et al. disclose all of the claim limitations as set forth above. While Hitoshi et al. disclose dispersing and re-dispersing treatments by homogenization, the reference does not explicitly disclose that said homogenization step is performed using a

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homogenizer under a pressure less than said step of preparing a suspension. As viscosity and particle size are variables that can be modified among others, by adjusting homogenizing pressure, where viscosity and particles size both decreasing as the homogenization pressure is increased, the precise homogenization pressure would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed homogenization pressure cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the homogenization pressure for treating the protein denaturation raw material and post-fermentation product of Hitoshi et al. to obtain the desired balance of viscosity and particle size (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).

Regarding claim 10, Hitoshi et al. disclose a method of manufacturing solid fermented food (see yogurt - [0031]) made from beans as a raw material ([0013]), wherein it comprises the steps of:

- Preparing a stabilized suspension by treating an aqueous slurry of whole-grain mash of beans once or a plurality of times using a homogenizer (Example 1 – [0033]).
- denaturing protein by adding a coagulant and/or a pH adjustor to said stabilized suspension ([0015] – [0016]) and;
- performing the dispersing treatment for making the relevant protein denaturation raw material dispersed by a physical dispersing means (see homogenization – ([0024]).

- fermenting for fermenting/solidifying by adding a lactic bacterium starter ([0027]-[0031]), following the relevant step of performing a dispersing treatment (see homogenization – [0031]).

While Hitoshi et al. discloses treating an aqueous slurry of whole-grain mash of beans using a homogenizer the reference does not explicitly disclose using a homogenizer under a homogenizing pressure of 100 Kgf/cm². As viscosity and particle size are variables that can be modified among others, by adjusting homogenizing pressure, where viscosity and particles size both decreasing as the homogenization pressure is increased, the precise homogenization pressure would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed homogenization pressure cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the homogenization pressure for treating the aqueous slurry of whole-grain mash in Hitoshi et al. to obtain the desired balance of viscosity and particle size (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).

With regards to the step of maturing, the phrase "if it is necessary" has been construed to mean "optionally" wherein one embodiment of the method includes a maturing step and another does not include a maturing step. Hitoshi et al. does not disclose a step of maturing and therefore the reference anticipates the claim.

Regarding claims 11-12, Hitoshi et al. disclose all of the claim limitations as set forth above. Hitoshi et al. also disclose that the method further comprises the step of (1) fermentation for adding saccharides ([0026]) as well as a lactic bacterium starter if it is necessary and

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fermenting ([0027] – [0030]) and (2) that one or more than two species of coagulant (s) and/or pH adjustor (s) are selected from the group of magnesium chloride, calcium chloride and an acidic pH adjustor ([0016]).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH GWARTNEY whose telephone number is (571)270-3874. The examiner can normally be reached on Monday - Thursday; 7:30AM - 5:00PM EST and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571) 272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gwendolyn Blackwell/
Primary Examiner, Art Unit 1794

/E. G./
Examiner, Art Unit 4145

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